EURASIAN EXPERIMENT JOURNAL OF SCIENTIFIC AND APPLIED RESEARCH
(EEJSAR) ISSN: 2992-4146
©EEJSAR Publications Volume 5 Issue 1 2024



# Uptake of Cervical Cancer Screening and Associated Factors among Women 15-49 Attending Jinja Regional Referral Hospital Jinja City Eastern Uganda

**Adong Babra**
**Faculty of Clinical Medicine and Dentistry Kampala International University Western Campus Uganda**

## ABSTRACT

Particularly in Sub-Saharan Africa, where Uganda has one of the highest incidence rates worldwide, cervical cancer is a serious public health problem. Utilisation is still low despite national programmes that support free HPV vaccinations and screenings. This research looks at what influences women who visit Jinja Regional Referral Hospital in Eastern Uganda to be screened for cervical cancer. The study emphasises the significant global burden of cervical cancer, with a focus on low-resource nations. The startling data and low screening acceptance in Uganda are shown. Recognised are the screening programmes established by the Ugandan Ministry of Health and the important problem of underutilization. The purpose of this study is to determine the causes of the low screening rates among female patients at Jinja Regional Referral Hospital. Interventions may be created to increase uptake and eventually reduce cervical cancer fatalities in Uganda by taking these aspects into consideration.

**Keywords:** Cervical Cancer, Uptake, HPV, Women, sub-Saharan Africa

## INTRODUCTION

Cancer is the leading cause of death worldwide and accounted for 8.2 million deaths in 2013 [1]. More than half of all cancers (56.8%) and cancer deaths (64.9%) occurred in low- and middle-income countries [1]. Furthermore, projections based on GLOBOCAN 2012 predict a substantive increase to 19.3 million new cancer cases per year by 2025, due to the growth and ageing of the global population. 80% of the cases occur in low-resource countries like Africa, Latin America, and Southeast Asia [2]. Cervical cancer is the second most commonly diagnosed cancer in women and has continued to pose a huge challenge to women`s health worldwide, especially in the poorest countries [3]. In 2013, there were an estimated 485,000 new cases and 236,000 deaths due to cervical cancer. 87% of these deaths occurred in less developed regions [4]. In sub-Saharan Africa, 34.8 new cases of cervical cancer are diagnosed per 100,000 women annually, and 22.5% of women per 100,000 die from this disease [5]. This has been attributed to a lack of epidemiological data and poor awareness, a lack of human and financial resources, non-existent cancer service policies, and a lack of political will to address the complex problem [6]. East Africa has the highest sub-regional incidence of cervical cancer, with an age-standardized rate of 42.7 per 100,000 women, followed by Southern Africa with 31.5 per 100,000 women [7]. In Uganda, cervical cancer is the number one cause of cancer-related death among women. [8] WHO estimates that in 2014, approximately 3915 Ugandan women were diagnosed with cervical cancer and that 2160 died from the disease [8]. Furthermore, a 33.6% prevalence of human papillomavirus (HPV) among women in Uganda combined with low screening uptake has resulted in the country having one of the highest cervical cancer incidence rates in the world, at 47.5 per 100,000 per year [9]. Cervical cancer is a malignant neoplasm of the cervical area [10]. Human papillomaviruses (HPV) 16 and 18 are the main causative agents. Vaginal bleeding, contact bleeding, or, rarely, a vaginal mass may indicate the presence of the malignancy, but in some cases, there may be no obvious symptoms until the cancer has progressed to an advanced stage. Prevention is possible with early and regular cervical cancer screening. The Uganda Ministry of Health (MOH) policy and regulations on cervical cancer recommend that all women aged 25–49 years should have cervical cancer screening, and girls aged 10–14 years should be vaccinated against the human papillomavirus (HPV). This vaccination and screening campaign was aimed at achieving 80% coverage by 2015.The Uganda Ministry of Health (MOH), in partnership with non-governmental organisations (NGOs) such as PATH Uganda, the World Health Organisation (WHO), and private not-for-profit (PNFP) hospitals, has established organised cervical cancer screening programmes and has set up screening centres in some regions of the country. These centres provide health education, screening, advocacy, and treatment for cervical precancerous lesions. These efforts are, however, not effectively utilised, as there is a low turnout in the few facilities where screening services are offered around the country.

There is a very low uptake of cervical cancer screening in Uganda, and the few screening services available are not fully utilised by women [11]. The utilisation of cervical cancer screening services is important in reducing the cervical cancer rate in Uganda. Despite its being free, few studies done in low- and middle-income countries have reported low utilisation of this screening service [12] Most women are considered to be unaware of cervical cancer and its danger. The reasons why they do not seek preventive measures such as cervical cancer screening to prevent such a serious disease, especially in less developed countries such as Uganda, need to be addressed, especially as the screening service is provided at no or little cost [13].With this high incidence of cervical cancer and the low utilisation of screening services, this study will determine the factors affecting the utilisation of cervical cancer screening among women attending health services at Jinja Regional Referral Hospital in Uganda. The study was designed to determine factors affecting the utilisation of cervical cancer screening among women attending health services at Jinja Regional Referral Hospital, Eastern Uganda.



## METHODOLOGY

### Area of Study

The study will be carried out at Jinja Regional Referral Hospital in eastern Uganda. Jinja Regional Referral Hospital has several departments, but this research study was interested in women (15–49 years old) who were attending outpatient and inpatient departments.

### Research design

The study is a descriptive cross-sectional study, employing both qualitative and quantitative approaches on factors influencing the uptake of cervical cancer screening among women aged 15–49 attending Jinja Regional Referral Hospital in eastern Uganda.This design was chosen because of the need to obtain diverse information about women's health knowledge related to cervical cancer screening uptake through the use of interviewer-administered questionnaires.

### Population and sampling

A study population refers to individuals who are eligible for inclusion in a specific study. Women attending reproductive health services from both the outpatient and inpatient departments at Jinja Regional Referral Hospital, Eastern Uganda, shall be selected as the study population. A simple random sampling technique of women aged 15–49 years will be applied to the participants of the study. As women come in for visits at the health facility, they are selected randomly until the required sample size is attained. To arrive at the sample size, the "Fishers et al. 1998" formula will be used in calculating the population.

$$n=\frac{Z^2\,p(1-p)}{d^2}$$

Where n is the desired sample size (if the target population is greater than 10,000),
Z = the standard normal deviation of 1.96 at a 95% confidence interval
p = population with the desired characteristic (in this case, cervical cancer).
d = acceptable error (0.05)
If p=0.5, q = 1 - 0.5 = 0.5.
n = 1.962x0.5x0.5
0.052
n = 384 women
Since the population in the town is less than 10,000, the following formula is used to calculate the sample size (nf).
nf= n/(1+n/N)
N = population of females in Jinja city, Eastern Uganda (4623 women)
nf = 384/(1+384/4623)
= 354 women

### Inclusion criteria

Women who are between the ages of 15 and 49 sought reproductive health services at the outpatient and inpatient departments of Jinja Regional Referral Hospital.

### Exclusion criteria

Women younger than 15 years, or those above 49 years, who were attending the outpatient and inpatient departments of Jinja Regional Referral Hospital for reasons other than reproductive health services.

### Data collection tool

Various techniques for measuring study variables exist, such as interviewing, observation, questionnaires, or scales. Questionnaires were the approach used to study this phenomenon. The questionnaires shall consist of closed-ended and open-ended questions on factors influencing uptake of cervical cancer screening among women, and this will be used as the data collection instrument. Due to the non-existence of a validated questionnaire on the issue under investigation, the researcher shall develop the questionnaire based on the relevant literature from different sources [14], expert opinions from an obstetrician and a gynaecologist, one public health nurse, and one midwife.The questionnaire will be clearly typed and organised into four sections, namely sections A, B, and C.

Section A focused on socio-demographics such as age, marital status, educational level, and work status. Section B was on knowledge of cervical cancer and cervical cancer screening. Lastly, Section C will focus on the utilisation of cervical cancer screening services.

**Data Collection Procedure**

Data collection was done by the researcher. Information regarding the study will be explained to the participants; they shall receive a consent form to sign based on their willingness to participate in the study. The data shall be collected at the outpatient and inpatient departments of Jinja Regional Referral Hospital. The researcher shall explain the instructions concerning the questionnaire to the respondents.



**Data analysis**

EPI-Info data entry forms shall be used in the entry of the data collected from the field, and then Statistical Package for Social Scientists (SPSS) software is used for data cleaning and analysis. Using this software, the researcher generated tables, demonstrative charts, and graphs to provide the study with the required information from the results and findings in the data.

**Data quality control**

The questionnaires will be pretested at Mafubira Health Centre IV a month prior to the beginning of the study, and the fundamental changes required shall be edited before the commencement of the study. All the questionnaires administered to the respondents will be checked for completeness before data entry, and in case of any incompleteness, the respondents will be revisited since they will be coded. The numbering of questionnaires shall be done in order to avoid repetition during data entry on the computer.

**Ethical considerations**

Authority to carry out research will be obtained from the graduate school of Kampala International University-Western campus through an introductory letter from the faculty of clinical medicine and surgery administrator.Ethical clearance to conduct the study will be obtained from the Jinja Regional Referral Hospital Research Committee (JREC).Informed consent will be obtained from participants clearly outlining the objectives of the study before administering the questionnaires, and refusal or denial does not lead to any penalty.The participants will be assured of confidentiality with all the information they provide in the questionnaire through the use of codes.

**RESULTS**

**Socio-demographic Characteristics of the Respondents (N=347)**

Participants' socio-demographic data such as age, marital status, highest educational qualification attained, and work status were analyzed as indicated in tables and figures below.

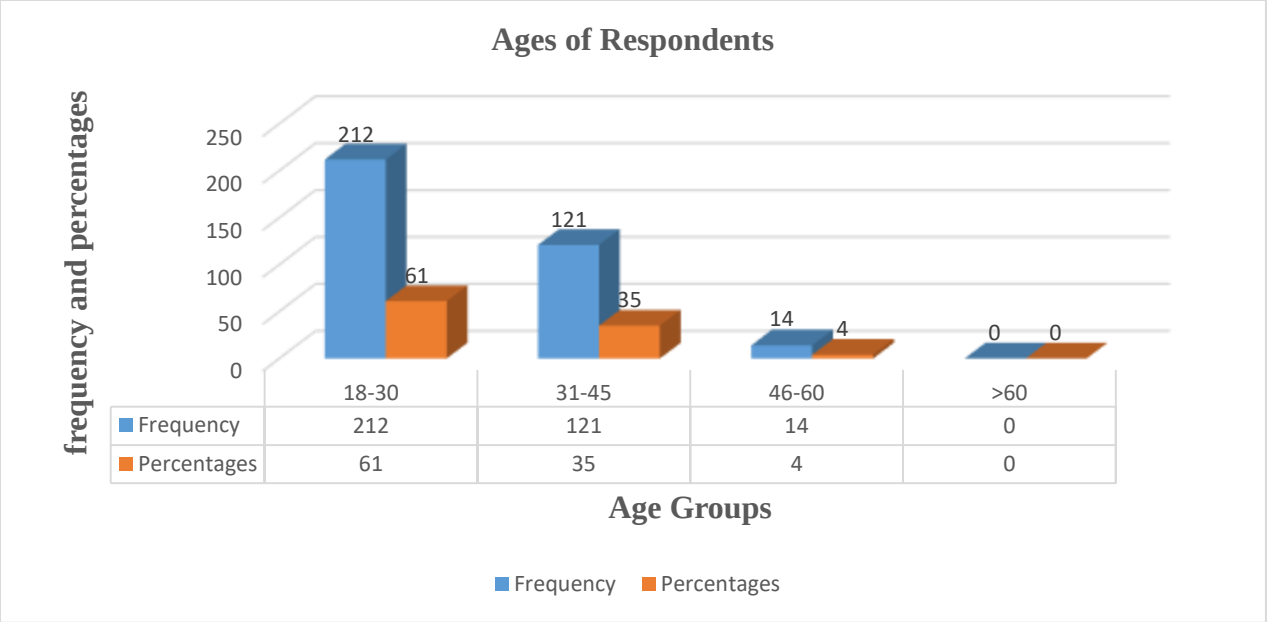


**Figure 1: Age Distribution of the respondents**

In **Figure 1**, an analysis of age distribution among participants showed that the majority 212 (61%) of the participants were between the ages of 18-30. 121 (35%) of the participants were between the ages 31-45, 14 (4%) were between the ages of 46-60 and finally 0(0%) were between the ages of >60. Both the youth and the aged participated in the study since they knew of major issues concerning cervical cancer screening.

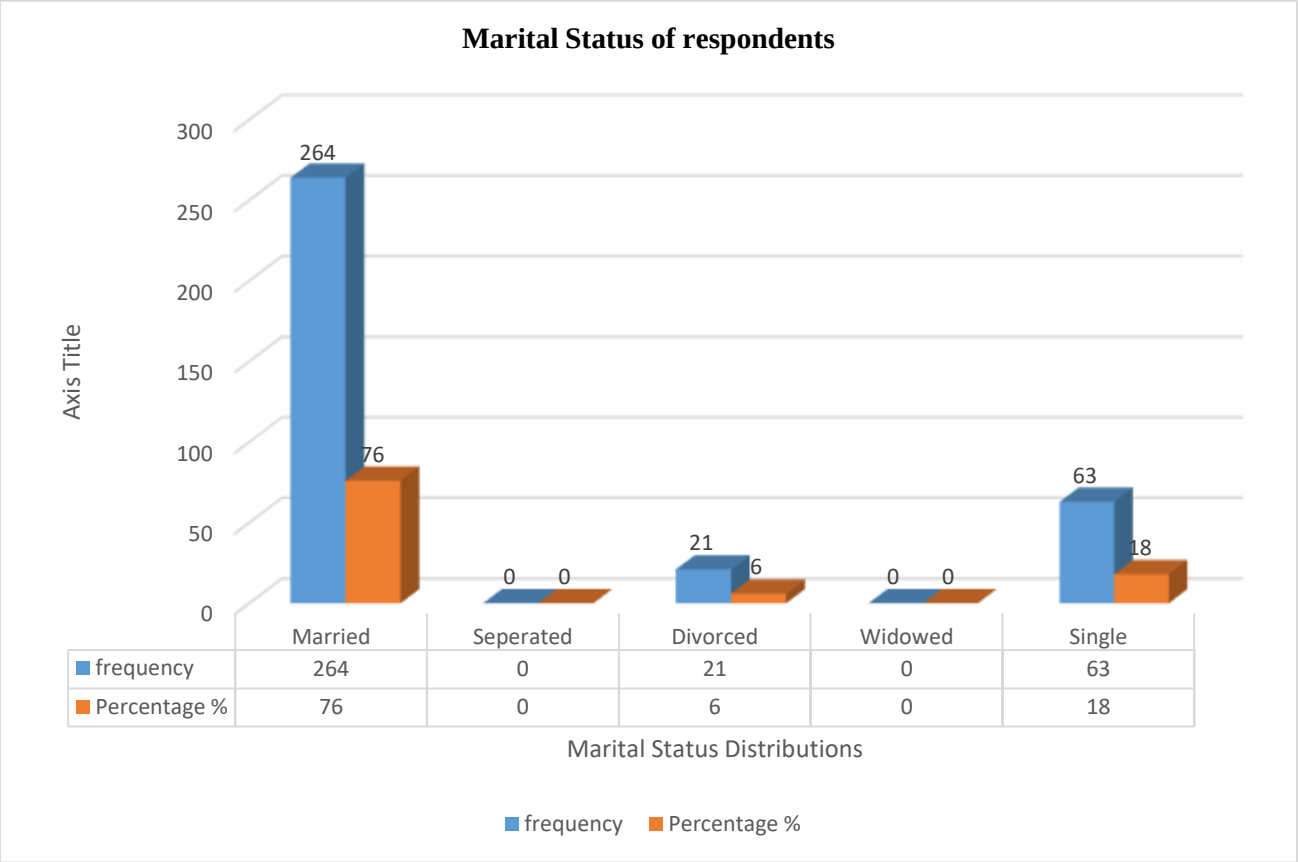


**Figure 2: Shows the Marital Status of the respondents**

**Figure 2: Shows that 264 (76%) were married, 21 (6%) were divorced and 63 (18%) were single**

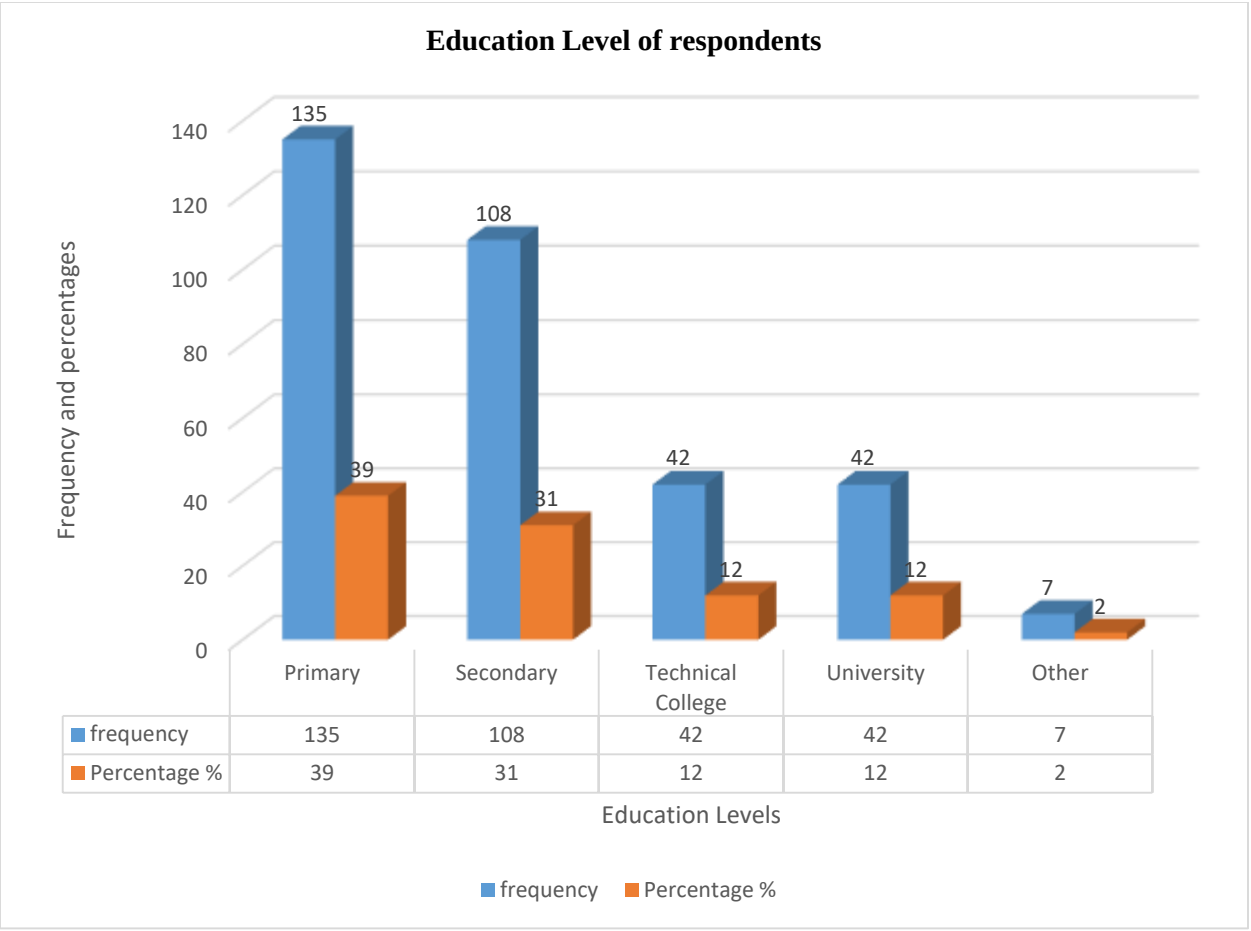


**Figure 3: Education Level of the respondents**

**Figure 3**: the study showed that most participants ended their education at the primary school level, 135(39%), 108 (31%) secondary level, 42 (12%) participants had attained technical college and university level education, and 7 (2%) had attained other education level.

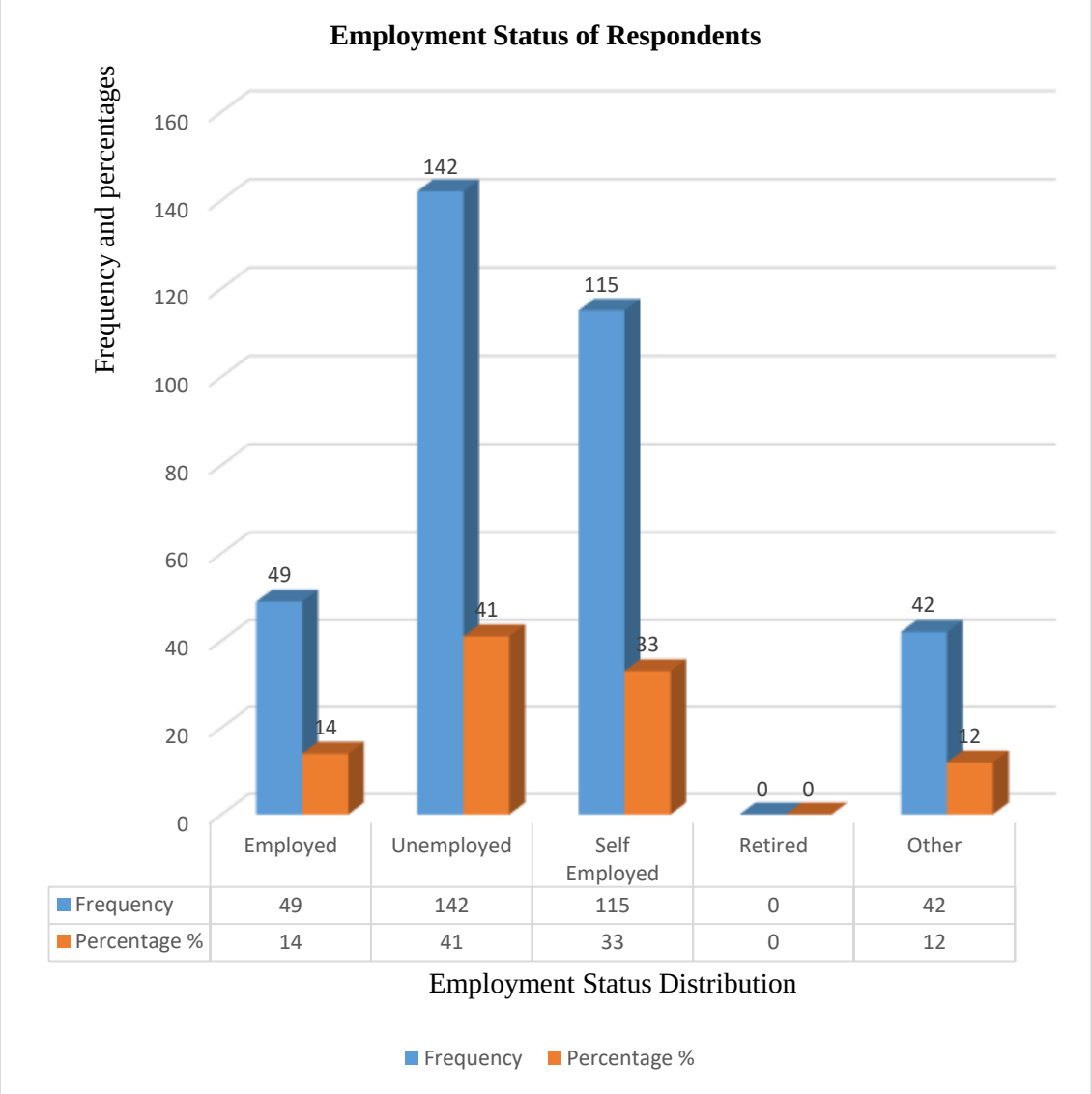


**Figure 4: Employment Status of the Respondents**

Regarding the work status of the sampled respondents, the study showed that 142 (41%) out of 347 participants were unemployed, 49 (14%) were employed, 115 (33%) were self-employed, 0(0%) were retired and 42 (12%) had other forms of employment like farming and others were students.

**Location, and access to the health facility.**

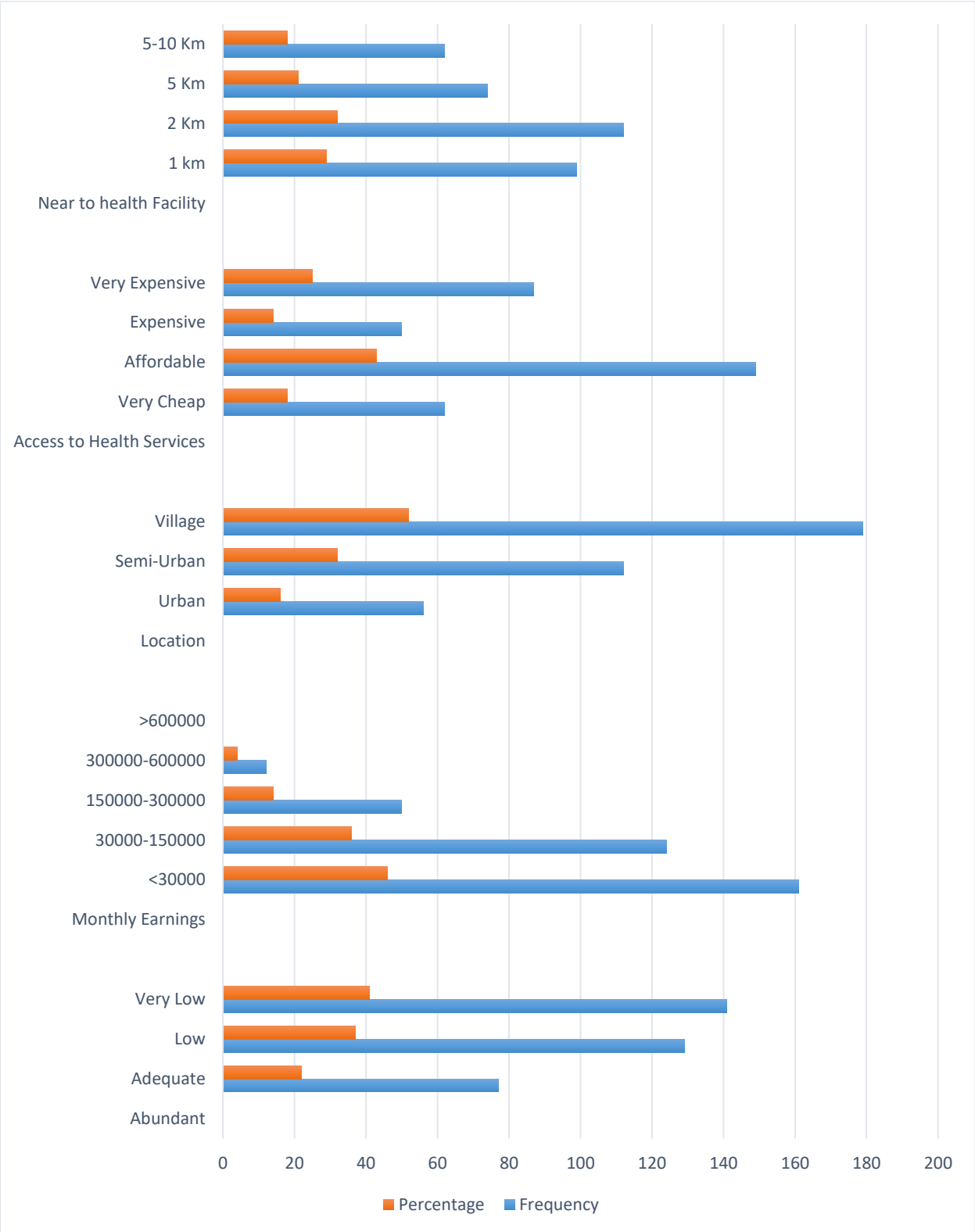


**Figure 5: Distribution of Respondent's socio socio-demographic data on Monthly Earnings**

**Level of knowledge on cervical cancer and cervical cancer screening.**



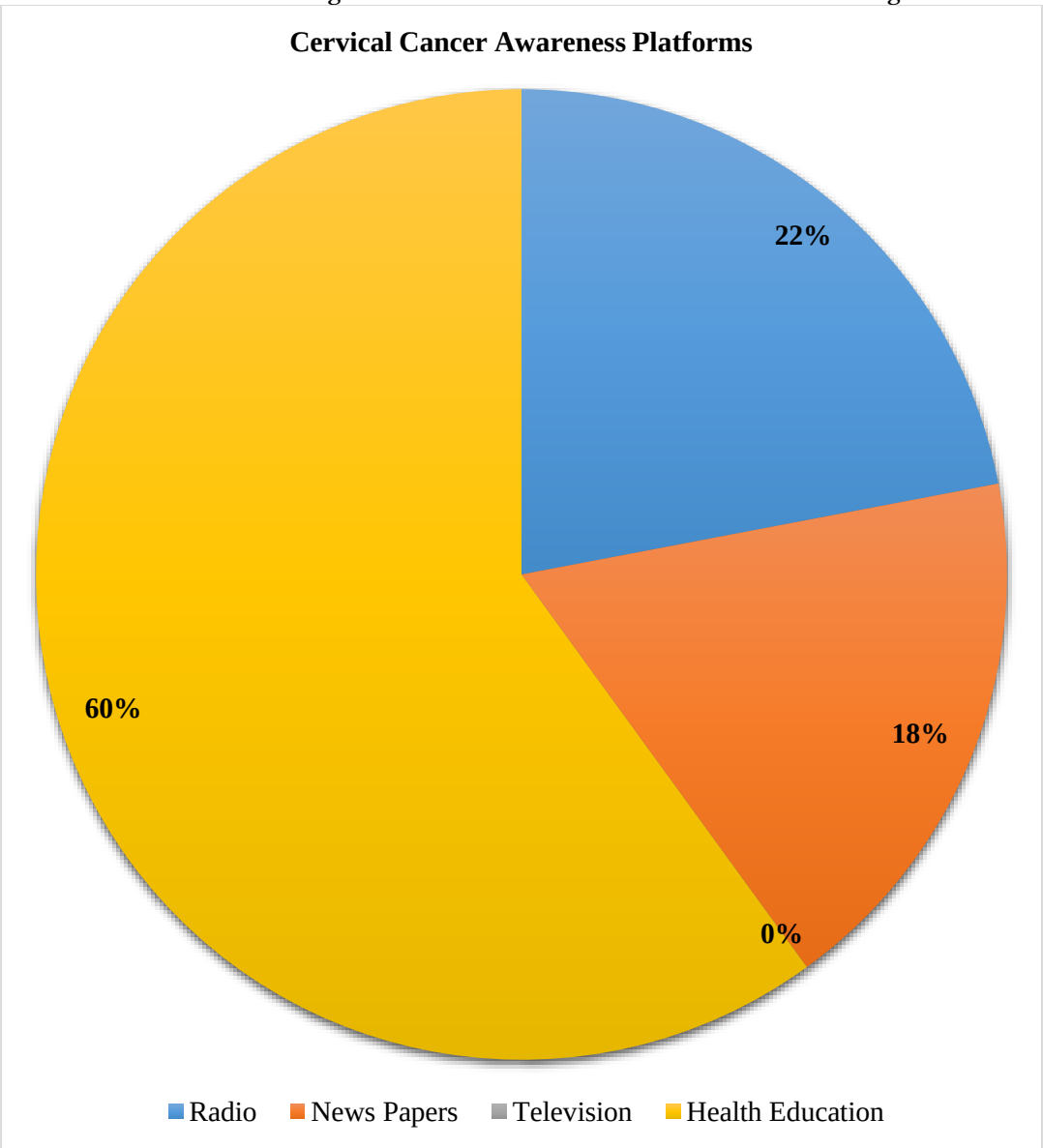


**Figure 6: Shows the Cervical Cancer Awareness Platforms**

**Table 1: Shows the different Signs for cervical cancer results from the respondents**

| Variables | Yes n(%) | No n(%) | I Don't Know n (%) |
|---|---|---|---|
| Vaginal Bleeding between periods | 312 (90%) | 0 | 35 (10%) |
| Persistent vaginal discharge that smells unpleasant | 312 (90%) | 0 | 35 (10%) |
| Discomfort or pain during sex | 312 (90%) | 0 | 35 (10%) |
| Menstrual periods that are heavier or longer than usual | 312 (90%) | 0 | 35 (10%) |
| Persistent Diarrhea | 0 | 104 (30%) | 243 (70%) |
| Vaginal Bleeding after the menopause | 139 (40%) | 0 | 208 (60%) |
| Vaginal Bleeding during or after sex | 104 (30%) | 69 (20%) | 174 (50%) |
| Unexplained Weight Loss | 69 (20%) | 35 (10%) | 243 (70%) |



**Cervical cancer screening utilization amongst women in Jinja Regional Referral Hospital.**

**Respondent's awareness results about cervical cancer Screening**

When asked about their knowledge of cervical cancer screening services, 100% of the respondents affirmed that they knew about the screening services. When participants were asked how they got the information about cervical cancer screening services, below are their responses.

**Table 2: Shows the Respondent's awareness results about cervical cancer Screening**

| Variable | Responses | |
|---|---|---|
| Have you heard of cervical cancer Screening | Yes= 347 (100%)<br>No= 0 (0%) | |
| How did you know about screening | Family | 35(10%) |
| | Friends | 104 (30%) |
| | Nurses | 174(50%) |
| | Doctors | 242 (70%) |
| | Community Health Worker | 347 (100%) |
| | Radio | 242 (70%) |
| | Television | 35(10%) |
| Can cancer be Prevented? | Yes= 278 (80%)<br>No= 69 (20%) | |
| Have you ever been screened for cancer | Yes= 209 (60%)<br>No= 138 (40%) | |
| When was the last time screened (N=208) | Less than month=58(16.5%)<br>Six months = 139 (67%)<br>1 year ago = 58 (16.5%)<br>Over 5 years ago=0(0%) | |

## DISCUSSION

**Socio-demographic Characteristics of Women Attending Jinja Regional Referral Hospital**

The study showed that socio-demographic variables such as age, marital status, education, employment status, monthly earnings, participant location, and access to health facilities were significantly associated with the comprehensive knowledge score of cervical cancer and screening. A total of 347 women were interviewed. The majority of the respondents were between the ages of 18 and 30, which constituted 61%, followed by 31 and 45. The findings indicated that younger women tended to seek reproductive health services more regularly than older women did. This suggests that as women age, they tend to show less concern about their health than they did when they were younger. This position is supported by Gorman [15], who attributed the seeming lack of health consciousness amongst older women to significant increases in social and domestic responsibilities. Also, Workowski [16] revealed that older women were more likely not to screen compared to younger women. The majority of the women in the study were married (75%). This finding is in agreement with Shorter [17] whose

findings suggest that married women showed more care about issues relating to their reproductive health and therefore sought more knowledge and showed concern about their reproductive health. Furthermore, this study found that the majority (39% and 31%, respectively, for primary and secondary) of the women had some level of education. The study by Dutil [18] found that women with low levels of education tended not to see the need for cervical cancer screening. Women with a higher level of education tended to be well informed of the risk of not seeking cervical cancer screening. In sharp deviation from the above expectation, this study indicated that more women with primary level education were found to frequently utilise healthcare reproductive health services than women with secondary and tertiary level education. This study is in agreement Iruo and Ezekiel [19] who indicated that the primary level of education was only a short step down the education ladder from secondary education. The findings indicate that more than 41% of participants were unemployed and 33% were self-employed, indicating ample time for these respondents to seek reproductive health care services, including cervical cancer screening services. Unemployed women, according to Lim and Ojo [11] tended to rely on their husbands for money to pay for reproductive health services.Overall, the study showed that women seeking reproductive health services at this hospital were mostly married in terms of relationship status, young in terms of age, educated at the primary school level, and mostly unemployed and self-employed.The study showed that significantly lower numbers of women attending health services in this hospital were single, older, employed, and relatively educated. This relates to many studies, as the study indicated that few of their study participants were married, older, unemployed, and uneducated.

**Level of knowledge on cervical cancer and cervical cancer screening among women.**

Participants in the study generally knew about cervical cancer. When asked about the awareness platforms available and the signs and causes of the chronic disease, an average of 51% of the total respondents had adequate knowledge of what cervical cancer was, the risk factors for women, the causative agents and factors, and the conditions that contributed to the development of cervical cancer. This is supported by a study done in Nigeria, which reported the level of knowledge on cervical cancer and cervical screening to be high (65%) [18]. However, a study by [19] in southern Nigeria revealed that fewer than 40% of 360 participants were aware of cervical cancer. 30% and 25% of the same participants, respectively, were aware that cervical cancer was preventable and had heard of cervical cancer screening. Figure 6 above shows that health education and radio health programmes, with 60% and 22%, are key awareness platforms as regards cervical cancer and screening. Averagely, 51% of the participants demonstrated adequate levels of knowledge about cervical cancer, which was impressive because a significant number of participants had basic to no education at all, while 36% and 8% demonstrated that they did not know and had a had a low level of knowledge, respectively, on cervical cancer and cervical cancer screening.

**Cervical cancer screening utilisation amongst women**

The majority of participants (100%) attested to know about cervical cancer screening. The study showed that only 60% of the sampled participants had previously participated in a cancer screening exercise. This finding is similar to the few studies that have been conducted in the country [14] Fifty percent (50%) of women in developing countries have had cervical screening done [20]. A study done in the coastal part of Ghana reported that only 48% of study participants had been screened for cervical cancer before [14]. This study seems to have a higher screening rate than these reported studies in Ghana, even though the rate is still low. However, 40% of the women have not carried out the cancer screening test; these results are also similar to the findings in other countries as reported in the literature [18] The study showed that not only do women refuse to undergo cervical cancer screening, but the few women who do only conduct the test once after six months and thereafter neglect to go for further testing. [21,22] recounted the fruitlessness of continuing testing processes and how one test in a long while was not enough to protect a woman against the silent dangers of cervical cancer.

Most of the participants were young, single, and had some form of education. The majority of them were unemployed or self-employed. Participants had adequate knowledge of both cervical cancer and cervical cancer screening. However, there was low utilisation of cervical cancer screening. Socio-demographic characteristics such as age, marital status, education level, and employment status were key in the study of the different concepts.

## CONCLUSION

In all, even with adequate knowledge of cervical cancer and cervical cancer screening, utilisation of cervical cancer screening services is significantly low among women attending the hospital. Fear of the screening procedure being painful, as well as not knowing where to go for screening and having little understanding of cervical cancer, may be part of the reason for the low utilisation of cervical screening. The study aims and related objectives were achieved.

**Recommendations**

This study offers recommendations for health professionals, doctors, nurses, and other community health workers to focus on preventive health measures for cervical cancer prevention. Awareness campaigns targeting illiterate groups can be conducted in the community so that they become motivated towards cervical cancer screening.

## REFERENCES


1. Siegel, R., Desantis, C., & Jemal, A. Colorectal Cancer Statistics, 2014. *CA: A Cancer Journal for Clinicians*, 64**,** 104–117.
2. CDC, C. F. D. C. A. P. 2013. Cervical cancer screening among women aged 18–30 years, United States, 2000–2010. *MMWR. Morbidity and mortality weekly report*, 61**,** 1038.
3. Alum, E. U., Ugwu, O. P. C., Obeagu, E. I. Cervical Cancer Prevention Paradox: Unveiling Screening Barriers and Solutions, *J, Cancer Research and Cellular Therapeutics. 2024*, 8(2):1-5. DOI:10.31579/2640-1053/182.
4. Popat, K., McQuen, K., & Feeley, T. W. (2013). The global burden of cancer. *Best Practice and Research in Clinical Anaesthesiology*, 27**,** 399–408.
5. World Health Organisation 2013. WHO guidelines for screening and treatment of precancerous lesions for cervical cancer prevention: supplemental material: GRADE evidence-to-recommendation tables and evidence profiles for each recommendation.
6. Alum, E. U., Ugwu, O. P. C., Obeagu, E. I., Ugwu, C. N. Beyond Conventional Therapies: Exploring Nutritional Interventions for Cervical Cancer Patients, *J, Cancer Research and Cellular Therapeutics*, 8(1);1-6. DOI:10.31579/2640-1053/180.
7. Vandana, T. A. *Development and Evaluation of Measures of the Quality of Facility-Based Labour and Delivery Care in Sub-Saharan Africa*. Johns Hopkins University, 2014.
8. Brotherton, J. M., Zuber, P. L., & Bloem, P. J. Primary prevention of HPV through vaccination: an update on the current global status. *Current Obstetrics and Gynaecology Reports*, 2016, 5**,** 210–224.
9. Bruni, L., Barrionuevo-Rosas, L., & Albero, G. Human papillomavirus and related diseases in South Africa. Summary Report 2016. *ICO Information Centre on HPV and Cancer (HPV Information Centre)*. 2016.
10. Krishnaveni, K., Roy, P. & Sambathkumar, R. Knowledge, attitude and practice related to cervical cancer and screening among women: Community based cross-sectional study. *International Journal P., Pharmaceutical Sciences and Research attitude*, 2018, 729.
11. Lim, J. N., & Ojo, A. Barriers to utilisation of cervical cancer screening in Sub-Saharan Africa: a systematic review. *European journal of cancer care*, 2017, 26.
12. Koneru, A., Jolly, P. E., Blakemore, S., Mccree, R., Lisovicz, N. F., Aris, E. A., Mtesigwa, T., Yuma, S., & Mwaiselage, J. D. Acceptance of peer navigators to reduce barriers to cervical cancer screening and treatment among women with HIV infection in Tanzania. *International Journal of Gynaecology& Obstetrics*, 2017.
13. Cahoon, S., Cortessis, V., Najuna, S., Stumler, R., Jubilee, J., Ihenacho, U., Felix, J., & Muderspach, L. Pilot Evaluation of Cervical Cancer Screening Modalities in a Low-Resource Ugandan Setting. *Gynecologic Oncology*, 2017, 147**,** 192-193.
14. Ebu, N. I., Mupepi, S. C., Siakwa, M. P., & Sampselle, C. M. Knowledge, practice, and barriers towards cervical cancer screening in Elmina, Southern Ghana. *International journal of women's health*, 2015, 7**,** 31.
15. Gorman, M. 2017. Development and the rights of older people. *The ageing and development report*. Routledge.
16. Workowski, K. A., & Bolan, G. A. Sexually transmitted diseases treatment guidelines, *MMWR. Recommendations and reports: Morbidity and mortality weekly report. Recommendations and Reports*, 2015, 64**,** 1.
17. Shorter, E. *Women's bodies: a social history of women's encounters with health, ill-health, and medicine*, Routledge, 2017.
18. Dutil M "Examining Cervical Cancer Awareness and Screening among Postpartum Women in a Nigerian Tertiary Hospital: Perspectives from Sub-Saharan Africa." Undefined, 2023. doi: 10.9734/bpi/namms/v1/18615d
19. Iruo, L., Rosemary, E. Knowledge, Attitude and Practice of Cervical Cancer Screening Amongst Female Students of a Private University in South-South Nigeria." International journal of research and innovation in social science, undefined, 2022. doi: 10.47772/ijriss.2023.70585
20. Idayu, Badilla, Idris., Zakiah, Mohd, Said., Hanizah, Mohd, Yusoff., Mohd, Rizal, Abdul, Manaf. "A Comparison of the National Cervical Cancer Policies in Six Developing Countries with the World Health Organization Recommendations: A Narrative Review." Iranian journal of public health, undefined, 2023. doi: 10.18502/ijph.v52i6.12952
21. Sharmila, Pimple., Gauravi, A, Mishra. "Cancer cervix: Epidemiology and disease burden." Cyto Journal, undefined, 2022. doi: 10.25259/cmas_03_02_2021
22. Emmanuel, N. Tufon., Yuwon, Novert B., **Egba, Simeon I** and Ndohnui, N. Noel Prevalence, associated risk factors and methods of diagnosing cervical cancer in two hospitals in Yaounde, Cameroon. *International Journal of Advanced Research in Pharmaceutical and Biosciences*, 2012, **3(1)**: 55-59

| | | |
|---|---|---|
| | **CITE AS: Adong Babra (2024). Uptake of Cervical Cancer Screening and Associated Factors among Women 15-49 Attending Jinja Regional Referral Hospital Jinja City Eastern Uganda. EURASIAN EXPERIMENT JOURNAL OF SCIENTIFIC AND APPLIED RESEARCH. 5(1):31-41.** | |